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17CV52

Fifth Semester B.E. Degree Examination, Jan./Feb. 2021 Analysis of Indeterminate Structures

Time: 3 hrs.

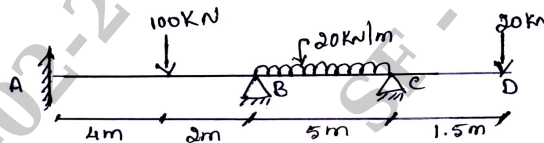
Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 Analyze continuous beam shown in Fig. Q1, by Slope deflection method. Draw Bending Moment diagram. Take EI constant. (20 Marks)

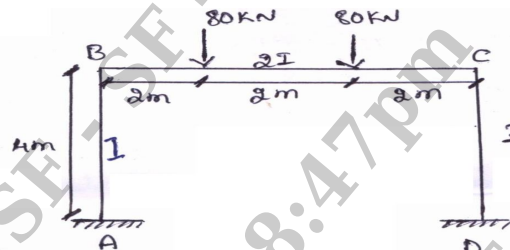
Fig. Q1



OR

- 2 Analyze the Portal frame shown in Fig. Q2, by Slope Deflection method. Draw bending moment diagram. (20 Marks)

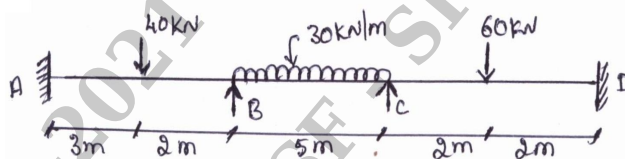
Fig. Q2



Module-2

- 3 Analyze Continuous beam shown in Fig. Q3, by Moment Distribution method. Draw Bending Moment diagram. Take EI constant. (20 Marks)

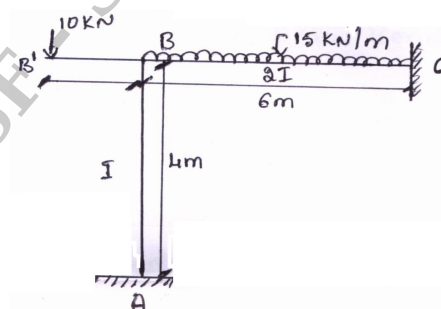
Fig. Q3



OR

- 4 Analyze Portal frame shown in Fig. Q4, by Moment Distribution method. Draw Bending Moment diagram. (20 Marks)

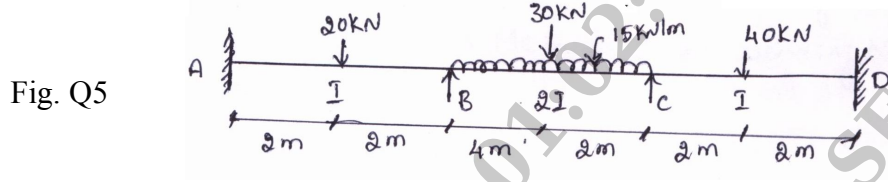
Fig. Q4



Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.

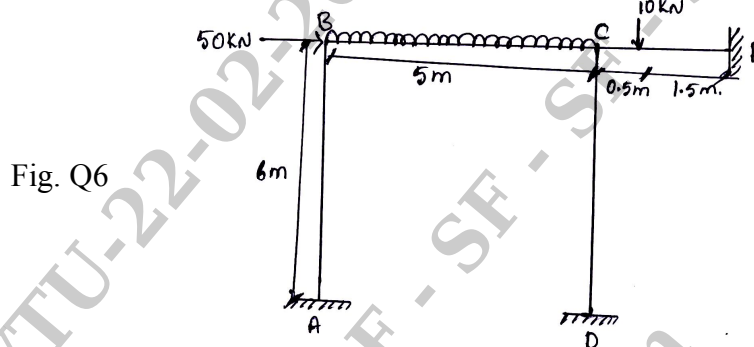
Module-3

- 5 Analyze the Continuous beam shown in Fig. Q5, by Kani's method. Draw Bending Moment diagram. (20 Marks)



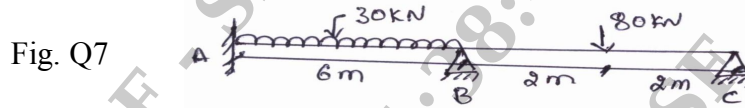
OR

- 6 Analyze the frame shown in Fig. Q6, by Kani's method. Draw Bending Moment diagram. (20 Marks)



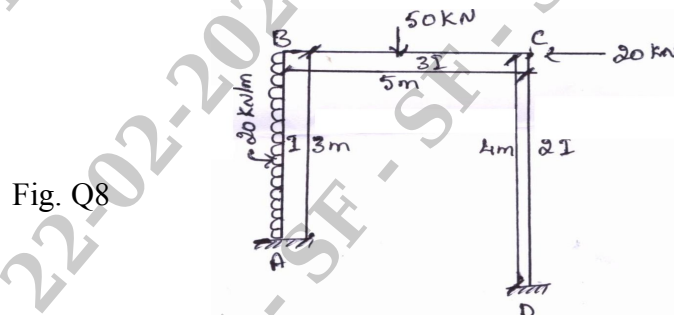
Module-4

- 7 Analyze the beam shown in Fig. Q7, by Flexibility Matrix method. Draw Bending Moment diagram. (20 Marks)



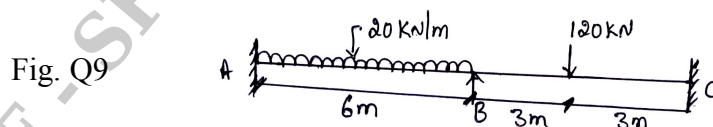
OR

- 8 Analyze Portal frame shown in Fig. Q8, by Flexibility Matrix method. Draw Bending Moment diagram. (20 Marks)



Module-5

- 9 Analyze the beam shown in Fig. Q9, by Stiffness Matrix method. Draw Bending Moment diagram. (20 Marks)



OR

- 10 Analyze Portal frame shown in Fig. Q10, by Stiffness Matrix method. Draw Bending Moment diagram. (20 Marks)

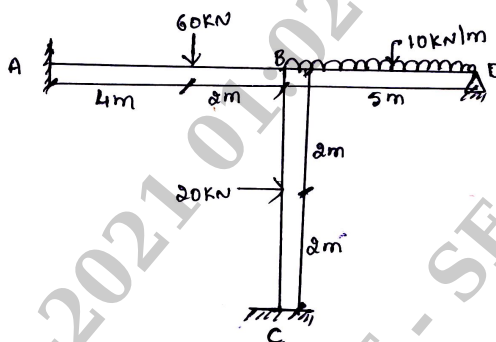


Fig. Q10
